

# Dissociative Experiences and Creativity in Fine Arts Students

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Studies on creative personality have revealed that the relationship between personality and creativity remains unclear, and various types of creative thinking have been associated with various personality traits. To assess the influence of dissociative experiences on creativity in the context of fine arts education, in which the creative process plays a key role, a sample of fine arts students received a test of creative potential and the dissociative experiences test. The results revealed significant differences in creativity (creative imagination and creative experiences) between students scoring high or low in the number of dissociative experiences. High dissociative experiences scores were associated to high scores in creative imagination and creative experiences, and low scores in dissociative experiences were inversely related to creative imagination and creative experiences. Further studies are required to corroborate these findings.

Some researchers have suggested a possible link between creativity, genius, and psychoticism or psychopathology, respectively (Furnham, Batey, Anand, & Manfield, 2008; Rawling & Locarnini, 2008). Notwithstanding, the scientific evidence associating creativity to mental illness is scarce, the precise nature of the relationship is unclear (Benjamin, 2008; Waddell, 1998), and several forms of creative behavior have been associated to a variety of personality traits (for a review, see Aguilar-Alonso, 1996; Runco, 2007).

Fink and Neubauer (2008) linked extraversion to creativity by measuring originality. The authors measured cortical activity on the EEG alpha band while individuals carried out creative idea generation tasks. Their findings substantiate their hypothesis, given that extraverted individuals who produced highly original ideas during task performance exhibited the highest alpha power, whereas introverted individuals producing fewer original ideas had the lowest alpha power levels. Wolfradt and Pretz (2001) found a positive relationship between openness to experience and an array of

measurements of creativity (written stories, lists of personal hobbies, and scores on the Creative Personality Scale, CPS). Moreover, high scores on intuition and extraversion were the best predictors for creativity as measured by the CPS.

Runco's (2007) review of studies on the personality of fine arts students revealed several distinctive traits such as high introspection, imaginativeness, self-sufficiency, aloofness, and sensitivity scores. Similarly, Pérez-Fabello and Campos (2008) found high scores for dissociative experiences in a sample of fine arts students.

The creative process is enhanced by factors such as absorption, fantasy-proneness, and daydreaming. In fantasy, both absorption and the imaginative process are fused to allow for unlimited exploration of convention or reality. Daydreaming and fantasy can be used to develop intuition, creativity, and other subconscious processes (Butler, 2004; Singer & Pope, 1981). Seidl (2003) has focused on everyday dissociation by examining the different states of consciousness up to ecstasy. At this peak, dissociation is associated to creativity in terms of constituting part of the creative process. Seidl considered ecstasy as a particular type of dissociation distinct to pathological-clinical forms of dissociation.

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The activity types undertaken in fine arts education enhance full commitment and promote absorption that goes beyond mere observation. This seems to suggest that one or more properties of a highly dissociative condition are involved: full commitment of cognitive resources, less susceptibility to external distractions, and loss of reality and critical thinking (Butler, 2006). In a similar context, a greater number of dissociative experiences were found by Pérez-Fabello and Campos (2008) to compare fine arts students with a sample of psychology students, in particular, experiences related to absorption, fantasy proneness, and imagination. This study tested the hypothesis that fine arts students are characterized by the high dissociative experiences scores obtained higher scores in creative experiences and creative imagination than fine arts students are characterized by the low dissociative experiences scores.

## METHOD

### Participants

A total of 132 students of second course from the Faculty of Fine Arts of the University of Vigo, Spain (29 men and 103 women) with a mean age of 19.51 yr ( $SD = 1.21$ , Range = 18 to 22 years). The participants were students of psychology of art that were invited to participate voluntarily in this study.

### Material and Procedure

The Creative Imagination Scale (CIS; Wilson & Barber, 1978), which assesses subjective responses to 10 test-suggestions was translated into Spanish. The 10 suggestions provide descriptions that guide subjects to use their own thinking and creative imagination to experience the suggested effects. The experiences involved visual and auditory, as well as kinaesthetic and olfactory, sensations. Following administration of the CIS, the participants were asked to rate their experiences for each of the 10 test-suggestions by indicating the extent to which each imagined experience matched the corresponding real experience on a 5-point scale ranging from *not at all the same* as the real thing (score of 0) to *Almost exactly the same* as the real thing (score of 4). Thus, scores on each of the 10 test-suggestions can range from 0 to 4, and total scale scores on the CIS can range from 0 to 40.

The Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986, Spanish version by Icarán, Colom, & Orenge, 1996) is a self-report questionnaire that asks subjects to indicate the frequency of 28 dissociative experiences, and is useful for clinical and nonclinical populations. Items include experiences of amnesia, loss

of awareness, depersonalization, derealization, absorption, and identity disorders. Examples of DES items include having no memory for important past events in one's life (autobiographical amnesia), being in a familiar place and finding it strange and unfamiliar (derealization), feeling as if one's body is not one's own (depersonalization), becoming so absorbed in watching television or a movie that one is unaware of what is happening (absorption), and feeling as if one is two different people (identity alteration). Instructions on the cover sheet specify that subjects should not include experiences that occurred when they were under the influence of alcohol or drugs. The 28 items scored on the scale have a range from 0 to 100. From a list of experiences, subjects are required to score their frequency by ticking a point on a dotted line where 0 is equivalent to *never* (0% of the times) and 100 equals *always* (100% of the times). The midpoint of the line indicated 50% of the times. Total scores were calculated by averaging the 28-item scores.

The Creative Experiences Questionnaire (CEQ; Merckelbach, Horselenberg, & Muris, 2001, Spanish version by Sánchez-Bernardos & Avia, 2004) is a 25-item self-report measure based on Wilson and Barber's (1983) listing of fantasy proneness characteristics. Respondents have to indicate yes or no to statements such as, "As a child, I could very easily identify with the main character of a story or movie"; "When I recall my childhood, I have very vivid and lively memories"; and "I can recall many occurrences before the age of three." Some CEQ items allude to the developmental antecedents of fantasy proneness. Other items have to do with intense elaboration of and profound involvement in fantasy and daydreaming. Still others pertain to the concomitants and consequences of fantasizing. Affirmative answers are added to obtain the total score (range, 0 to 25), with higher scores indicating higher levels of fantasy proneness.

Subjects were first administered the CIS, given that all of the subjects were required to complete the questionnaire together, prior to completing the DES and CEQ. Participants were tested in groups of 20–30 in their classrooms and were informed that their results would remain strictly confidential.

## RESULTS

Internal consistency, as estimated by the Cronbach's  $\alpha$ , was .72 for the CIS, .90 the DES, and .77 the CEQ. Pearson correlations among the CIS and the DES was  $r = .31$ , and between the CEQ and the DES,  $r = .56$ . All of the correlations were significant ( $p < .001$ ). Similar levels of significance were observed between both creative tests (CIS and CEQ;  $r = .40$ ), and comparable

TABLE 1

Means and Standard Deviation in Creative Imagination Scale (CIS) and Creative Experiences Questionnaire (CEQ) of High and Low in Dissociative Experiences Scale Scores

	DES								
	High			Low			Total		
	M	SD	N	M	SD	N	M	SD	N
CIS	55.63	14.66	64	50.24	15.79	64	52.93	15.41	128
CEQ	14.09	3.98	64	9.86	4.21	64	11.98	4.60	128

results have been reported in other studies (Pérez-Fabello & Campos, 2008; Sánchez-Bernardos & Avia, 2004; Yu, 2005). Pérez-Fabello and Campos (2008) found that internal consistency on the DES was .90 for fine arts students, .89 for psychology students, and .91 for the entire sample (Cronbach's  $\alpha$ ). Sánchez-Bernardos and Avia (2004) obtained a Cronbach's  $\alpha$  of .73 for the CEQ in a sample of Spanish students from several schools (elementary to high school). Yu (2005) found in a sample of university students in Hong Kong that both the alpha reliability coefficient and the Guttman split-half coefficient for the 10 CIS components was .71.

To determine significant differences between high and low dissociative experiences scores in both creativity tests, a Multivariate Analysis of Variance (MANOVA) with DES performance (high or low) as independent variable and CIS and CEQ as dependent variables was carried out. The scores of the DES subjects were found to influence creativity, Lambda de Wilks = .79,  $F(2, 125) = 16.979$ ,  $p < .001$ , power = 1,  $\eta_p^2 = .214$ . Later univariate analysis revealed significant differences in creative imagination (CIS),  $F(1, 126) = 3.996$ ,  $p < .05$ , power = .52,  $\eta_p^2 = .032$ , and creative experiences (CEQ),  $F(1, 126) = 34.179$ ,  $p < .001$ , power = 1,  $\eta_p^2 = .213$  (see Table 1). The fine arts students who scored high on the DES obtained higher scores on the CIS and the CEQ than the fine arts students who obtained low scores on the DES.

## DISCUSSION

The findings of this study revealed significant differences in creativity (creative imagination and creative experiences) between the fine arts students who obtained high, as opposed to those who obtained low, dissociative experiences scores. Students who exhibited the greatest dissociative experiences had greater creative imagination and creative experiences than students with low dissociative experiences scores. The relationship between dissociative experiences and

creativity has been cited in previous studies (Butler, 2004, 2006; Csikszentmihalyi, 1990; Seidl, 2003; Singer & Pope, 1981; Storr, 1983). Not only do dissociative experiences occur with normality in everyday life, in the arts they may well enhance the creative process (Singer & Pope, 1981). The various manifestations of normative dissociation such as daydreaming, fantasy proneness, absorption, and imagination promote unlimited explorations of convention or reality (Pica & Beere, 1995). These manifestations enable temporary healthy flights to alternative universes and a degree of commitment that enhances optimum performance (Csikszentmihalyi, 1990). Absorption derived from daydreaming ties persistent worries or unresolved challenges or goals to solutions that arise, in part, from a wider set of flow associations as well as from pondering and testing alternatives in fantasy (Butler, 2006). In these universes, artistic creativity is enhanced by "locura acordada, i.e., assented madness," an expression coined by the artist Juan Luis Moraza (2008, p. 31).

Given the limited number of similar studies in the field of fine arts, further studies are required to corroborate our findings. A fresh avenue of research is to determine if dissociative experiences, within the field of fine arts, influence artistic creativity by evaluating of a creative works of art by a panel of experts.

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